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DEDICATION

To my sons:

Michael

David

Jeffrey

May all your 'trips' be real ones.

THE UNIVERSITY OF ALBERTA

ATTITUDE ADJUSTMENT AS THE RESULT OF A SINGLE LECTURE

ON THE IMPLICATIONS OF DRUG ABUSE

BY
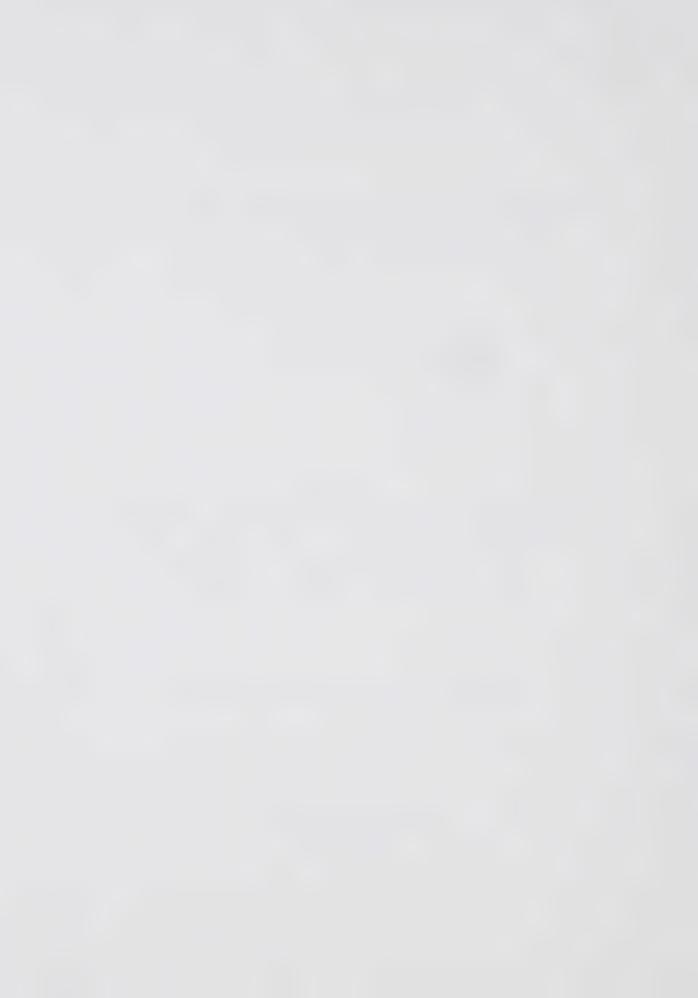
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A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES

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FOR THE DEGREE OF MASTER OF EDUCATION

DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

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The undersigned certify that they have read, and
recommend to the Faculty of Graduate Studies for
acceptance, a thesis entitled "Attitude Adjustment as
the Result of a Single Lecture on the Implications of
Drug Abuse" submitted by E.J.Armstrong in partial
fulfillment of the requirements for the degree of
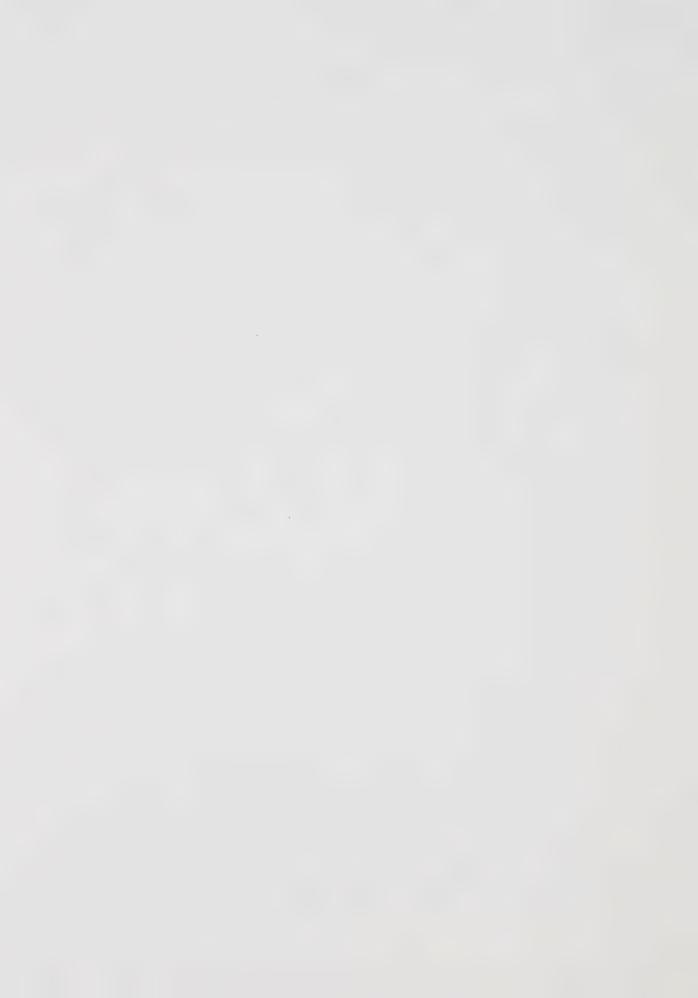Master of Education.

ABSTRACT

A primary intent of the present study was to investigate the effectiveness of the lecture in drug education. More specifically, the following three questions were investigated. Can attitude and knowledge be adjusted as a result of a single lecture? Does the perceived role of the lecturer influence the degree of attitude or knowledge adjustment? What relationship does attitude change have to a change in knowledge? Each of the four groups (N 210) was given a pre-test and post-test of knowledge and attitudes held. The three designated experimental groups were given a standardized lecture on the social, legal and medical implications of marijuana use prior to the post-test. The last group, the control group, did not receive the lecture. The measured changes in attitudes of the experimental groups were found to be significant at greater than the .001 level. The results indicated the presentation of information can bring about the desired change in attitudes.

The second question centered on the three experimental groups. Although each was given the same lecture, the lecturer presented himself in different roles to each of the groups (policeman, doctor and counsellor). There was no significant difference in the attitude change among the experimental groups.

Finally, in answer to the third question, the

anticipated relationship between attitude and knowledge change was not significant.

The results of the study clearly demonstrated that knowledge and attitude could be adjusted by a single lecture. At least for this study, the perceived role of the lecturer was not a factor in either attitude or knowledge adjustment. Little support was found to demonstrate a functional relationship between knowledge and attitude adjustment.

ACKNOWLEDGEMENTS

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CHAPTER I

INTRODUCTION

Statement and Importance of the Problem

The primary intent of this study was to investigate
the possibility of bringing about attitude changes by
education. If, in fact, attitudes can be adjusted by
education, then there is the possibility that the educational
system can reduce some of the social problems facing the
world. The abuse of drugs, particularly by our teen-agers
is one such social problem which is rapidly growing out of
control. In an attempt to make students aware of the issues
involved, the Department of Youth of the Province of Alberta
supports a number of educational programs. This Department
provides literature for educational programs operated by
service clubs and other interested groups. It is also
involved in co-ordinating and arranging for special speakers
and materials for these groups as well as for the schools
throughout the province. A similar educational commitment
has been made by the federal government and many of the
other provincial governments. The Federal Minister of
Health, the Hon. Mr. Munro, is preparing "a massive advertising
campaign to place the stark facts about drugs and drug abuse
before Canadian teen-agers (Blakely, 1970)." It appears that
both the federal and provincial governments believe that

drug education is an effective method of attacking the growing drug problem. A purpose of this study was to measure, by means of a specially designed test, the relative effectiveness of the lecture method in bringing about changes in the attitudes held by grade seven students towards marijuana.

If such an educational method can reduce drug abuse, it is desirable to discover the most suitable people to serve as lecturers. Consequently, the second part of this study, compared the influence of the school counsellor with that of the medical doctor and that of the drug squad detective.

Rationale for the Selection of Grade Seven Students

It was felt by this researcher, and the other three school counsellors associated with this study, that a most suitable point to begin drug education would be with seventh graders. A very recent study by the Ontario Addiction Research Foundation (Whitehead, 1970) supports this minimum education starting point. The findings of this study suggest a sharp increase in drug use between grade seven and grade nine. It would seem that to reduce grade eight drug abuse, education should start not later than grade seven.

Rationale for Role and Topic Selection

The selection of the three roles and the specific lesson topic (marijuana), were determined by the realities of the existing situation. The public's concern over drug abuse centers around the legal, medical and social implications. The legal aspect in this study can be identified with the drug squad detective; the medical aspect can be identified with the medical doctor; and the social aspect can be identified with the school counsellor. Marijuana, designated as a narcotic by law, was selected because of the controversy associated with its growing use. The news media almost daily provides some new evidence or expressed opinion of the harmfulness or the harmlessness of marijuana use. This polarization which is so readily apparent concerning marijuana use, led to its selection as a lesson topic. Thus, marijuana was considered to be a suitable topic with which to determine the relative effectiveness of the three communicators in bringing about attitude changes.

The bias contained in the lesson plan and reflected by the lecturer, was intended to suggest that while Canada's existing drug laws may not be perfect, marijuana is not recommended for use. This message was presented to each of the experimental groups by the same lecturer playing different roles.

DEFINITIONS

Attitude: For the purposes of this study, "attitude
is the predisposition of the individual to evaluate some
symbol or object or aspect of his world in a favorable
manner (Katz, 1960, p. 167)."

A Positive Attitude Change: A change which results in
the student being in closer agreement with the attitude of
the lecturer, as measured by the scores in the pre-test
and post-test, is defined as a positive attitude change.

Drugs: The term drugs for the purposes of this study
includes the following: LSD, marijuana, hashish,
barbituartes, amphetamines, methamphetamine, dimethyltrypt-
amine, tranquillizers, STP and solvents. Other drugs, such
alcohol and tobacco, are not included here because they
seldom result in the near panic reaction of parents
associated with the above listed drugs.

HYPOTHESES

I. Seventh grade students will adjust their
attitudes on drug abuse as the result of information
gained from a single lecture.

II. The role of the communicator of information
is a significant factor in attitude adjustment.

CHAPTER II

SOME RELATED LITERATURE

Attitudes

The concept that attitudes are learned and therefore
subject to forgetting and modification, as are all things
which are learned, is basic to this study. Doob (1947)
suggests that attitudes are in fact learned and suggests
that they are subject to refinement and to change.

> Almost all writers, no matter what their bias,
> agree that attitudes are learned. If this is
> so, then the learning, retention, and decline
> of an attitude are no different from the
> learning of a skill, a piece of prose, or a
> set of nonsense syllables; and they must also
> involve the problems of perception and
> motivation (p. 420).

It would follow from the above that attitudes are
subject to the same adjustments as are skills. Attitudes
then can be adjusted as a result of learning.

Hutt, Isaacson and Blum (1966) support Doob's
conception of attitude and go on to clarify the role of
the communicator. They contend that "the impact of
information upon attitudes depends upon the subject's
impression of the source and the manner in which the
information is presented (p. 400)." The aforementioned
theorists see the perceived role of the communicator as
vital to the direction and intensity of attitude adjustment.

A further example of the importance of the communicator

can be seen in the work of Asch (1952). Although much of
his work deals with the adjustment of attitudes as the
result of group pressure, he has also demonstrated the
importance of the communicator. The expressed attitudes
of a group of students to a speech were found to be
functionally tied to the students' perceptions of the
credited author. When the speech was attributed to John
Adams, it was rated favorable. When the speech was
attributed to Karl Marx, it was rated as unfavorable.
How the communicator is perceived affects the perception
of information and thus attitude change.

Role and Credibility

A communicator or lecturer is viewed as having some
degree of bias no matter what the subject matter of the
lecture. Thus, it can be expected that if his audience
has never heard the lecturer before, they will initially
accept his message in the light of the stereotype they
associate with his role. Role refers to the characteristics
and attitudes usually associated with a title such as
doctor or policeman. If a lecturer, presented as a
medical doctor, spoke on the use of cigarettes, his
audience would likely expect the lecturer to be against
the use of cigarettes. If the lecturer proved to be very
knowledgeable about the effects of cigarette smoking, his
audience might become more influenced with his displayed

knowledge, and less influenced by his role. The more
knowledgeable the lecturer, the more believeable or
credible the lecture seems. The knowledge displayed by
a lecturer can both reinforce the stereotype associated
with that role or distract from the stereotype associated
with a role. Thus, role and credibility are closely related
communication factors.

Credibility and Attitude Change

A recent study and literature review by Simsons,
Berkowitz, and Moyer (1970) examined the relationship
between source-receiver similarities, credibility and
attitude change. By source-receiver similarities, they
referred to factors such as color, race, education, sex
and attitudes held. Their study suggests that attitudes
do change and that the credibility of the communicator is
a key factor. However, they clearly point out that the
factors involved with attitude change are extremely
complex. That is, while credibility is a factor, other
factors such as respect, attraction and trust are also
involved in bringing about attitude changes. However,
Simsons et al (1970) suggested that in most cases the
acceptance or rejection of a communicator was based on
his expertness or credibility, rather than source-receiver
commonalities. Cohen (1964), as a result of his study,
states that "the greater the trustworthiness or expertness,

the greater the change toward the position advocated by
the communicator (p. 29)." A study by Hovland, Janis and
Kelly (1953) resulted in similar results. In their case,
they dealt with audience reactions to persuasive commun-
ications. Thus, communicator credibility is a key factor
in attitude change.

Role and Attitude Change

The actual acceptance or rejection of the perceived
roles played by the communicator has received insufficient
study. However, a study by Haiman (1949), reported by
Simsons et al (1970), reports:

> ... that a speech attributed to the Surgeon
> General of the United States on socialized
> medicine exerted significantly greater influence
> on students than one given by a sophomore or by
> the Secretary General of the Communist Party.
> Differences between the latter two sources were
> not significant (p. 10).

Related studies by Paulson (1954) and Aronson, Turner, and
Carlsmith (1963) report similar findings. Thus, while the
evidence is far from conclusive, the perceived role or
status of the communicator appears to be a factor in
bringing about an attitude change.

Theories of Attitude Adjustment

Efforts to explain attitude adjustments generally
make reference to the models of Festinger (1957) on
dissonance; Osgood (Osgood, Suci and Tannenbaun, 1961)
on balance; or Abelson (1958) on congruency. Hutt et al

(1966) suggested that "changes in attitude may occur when there is an imbalance or disequilibrium among various belief systems (p. 409)." Thus, the best theory seems to be a matter of choice. Zillig, as reported by Kelman and Eagly (1965), demonstrated the utility of Heider's (1946) cognitive balance theory. A group of popular students and a group of unpopular students were asked to give a calisthenics performance. The unpopular students were coached to give a good performance. The popular students were coached to give a poor performance. Fellow class-mates attributed the good performance to the popular students and the poor performance to the unpopular students. Thus, the students judged the performance in keeping with their feelings towards the two performing groups. They maintained a cognitive balance.

Kelman and Eagly (1965), in an experiment similar to this study, selected the cognitive balance theory of Heider as a model. A moderator introduced a different guest speaker to each of three history classes on the topic of Negro Colleges. The first speaker was uninformed and paternalistic (negative). The second speaker was a humble expert. The third speaker, a Negro clergyman, identified with the students. The bias of the speaker affected the students reception of information. That is, the negative speaker and his message were rejected. As Hutt et al (1966) have pointed out, the explanation models have a great deal

in common. In one way or another, the organism must adjust to new information (p. 409). In the case of Kelman and Eagly's study, the students rejected the information from the negative speaker and accepted the information from the positive speaker.

Specific Roles and Attitude Change

In terms of the previously mentioned experiment of Kelman and Eagly (1965), it was anticipated by the present investigator that the policeman would have the least success in influencing attitude change and knowledge change. To the various student activist groups and other anti-establishment groups, the policeman seems to represent much of what is wrong with the existing order. Further to this, the policeman is charged with enforcing existing laws whether they appear to be just or unjust. Since the news media regularly report clashes between students and policemen, it is felt that some of the negativism expounded by the news-makers will influence the attitudes of grade seven students. Thus, the policeman would likely be the most negatively perceived communicator.

The influence of negativism has also been reported by Torrance and Mason (1958). In their experiment, the ideas of military instructors were rejected by the trainees because what the instructors represented to the trainees was rejected. It was anticipated this lack of identification

would occur with the students and the policeman.

The medical doctor, in terms of the aforementioned study by Kelman and Eagly (1965), would be viewed as a well informed speaker. However, because some of the factual data he might present would run counter to what students who favoured drug use might already believe, it was anticipated that a medical doctor would achieve a mixed success.

The school counsellor, in terms of the Kelman and Eagly (1965) study, would seem to have the most potential for influencing attitude change. The counsellor is normally perceived in a positive light. The doctor, however, is sometimes seen as the cause of pain. The policeman is sometimes seen as the giver of punishment. Thus, it is felt the students would view the counsellor as the most positive lecturer.

For the purposes of this study, it was anticipated that the doctor, the policeman and the counsellor would be accepted as information experts. The policeman would be the legal expert. The doctor would be the medical expert. The counsellor would be the social expert as well as being well informed on the medical and legal factors of drug abuse.

On the basis of previous research, it was anticipated that attitudes would be adjusted as a result of lectures to students. The most significant change was expected

from the group exposed to the "school counsellor". The
next highest change was expected in the group lectured
to by the "medical doctor", followed by that group
exposed to the "policeman".

CHAPTER III

METHODS AND PROCEDURES

The Sample

Two grade seven classes from each of Hillcrest,
Westlawn, Britannia and Stratford Junior High Schools in
Edmonton, Alberta were selected for the study. Since both
the lecturer and this researcher had existing school
commitments, the grade seven classes selected, represent
those which caused the least time-table conflict.

These junior high school students were selected for
a number of reasons. This researcher, the Hillcrest
counsellor, had established a reasonably close working
relationship with staff members, particularly the counsellors
of the above mentioned schools. Each of these suburban
schools, feeder schools for Jasper Place Composite High
School, share common social and economic attributes. That
is, the students selected seemed to represent a reasonable
cross-section of the social and economic strata of the city
of Edmonton. The selected schools draw students from
welfare families as well as from the city's most affluent
families. Each of the schools, modern structures, are
well equipped in terms of staff and facilities. The school
populations of each of the schools falls between 600 and 650
students. Thus, the four schools involved in the study were

selected on the basis of their similarity on variables which appeared to be important.

The Instrument

In order to measure degree of attitude adjustment, a suitable test was required. Since such a test dealing with marijuana was not known to this researcher, a scale was developed.

Four scaling methods being used for attitude scale design (Hutt et al, 1966) are those designed and described by Thurstone, Likert, Guttman, and Osgood. Likert's method of using a five increment scale (strongly agree, agree, undecided, disagree, and strongly disagree) was selected by this researcher as being suitable for measuring the intensity of opinion of the attitudinal scale.

Two nearly identical tests were developed to measure both knowledge about marijuana and attitude towards marijuana use. The tests were developed from the data contained in the standardized lesson plan (APPENDIX A).

The knowledge portion of the test (APPENDIX B) consisted of fourteen true-false statements. These were developed so that there were seven true responses and seven false responses. These statements were then randomly ordered.

Fifteen attitude statements were developed from the standardized lesson plan and ordered in the same manner as

the true-false statements. The students were requested to indicate their response on the continuum of strongly agree, agree, undecided, disagree and strongly disagree.

With the exception of the last two attitude statements, numbers 16 and 17 (APPENDIX B, p.43), the statements on the pre-test and the post-test were identical. Statements 16 and 17 related to the students perception of the communicator and therefore appeared only on the post-test administered to the experimental groups. The phrasing of statements 16 and 17 was the same in each case, except that the appropriate lecturer (doctor, policeman or counsellor) was designated for the corresponding experimental group. The control group was given the same test in the two testing periods.

The true-false portion of the test had a range of 0 to 14 points. A value of one point was awarded for each correct true-false response. The attitude portion of the test had a range of 15 to 75 points. When the subject selected 'strongly agree', and strongly agree was the expressed opinion of the lecturer, he or she was awarded five points. When the subject selected 'strongly disagree', and strongly agree was the expressed attitude of the lecturer, he or she was awarded one point. The combination of the true-false scale and the attitude scale gave a full scale range of 15 to 89 points. Thus, a unique two-scale test was developed for the measurement of knowledge and attitude.

The Method

The permission of each of the involved school principals in conjunction with that of the Edmonton Public School Board was obtained to use students during regular school hours. A relatively tight schedule of participating class groups (TABLE I) was then developed.

A form letter (APPENDIX C) outlining the experiment in very general terms, was sent to the home of each of the participating students. The students were given the option of not taking part in the experiment. None however, exercised that option. Parents were also invited to make inquiries about the experiment. None of the parents inquired. It was felt by the present investigator that the use of the form letter gave the parents the option of not having their son or daughter participate if they so desired.

This researcher administered the pre-test to each of the grade seven class groups. In each case, only the school, sex and birthdate of the subjects was requested. The students were advised of their right to not take part in the experiment. They were requested to answer each and every question even if that meant guessing and to answer each question on their own. They were advised that any questions they might have as a result of taking the test would be answered for them in the near future. The class-room teacher was requested not to discuss as a class group any question raised by the tests. He was advised, however,

TABLE I

TEST-LECTURE SCHEDULE

Schools	Pre-test	Lecture	Post-test	Treatment & N
Hillcrest (class 7^1)	May 4 9:40am	May 11 9:40am	May 12 11:00am	Policeman N 43 Male 27 Female 16
Hillcrest (class 7^2)	May 4 12:20pm	May 11 12:20pm	May 12 2:30pm	
Westlawn (class 7C)	May 5 10:15am	May 12 10:15am	May 13 1:40pm	Counsellor N 58 Male 34 Female 24
Westlawn (class 7A)	May 5 10:15am	May 12 11:00am	May 13 2:20pm	
Stratford (class 7C)	May 6 10:15am	May 13 10:15am	May 14 1:00pm	Doctor N 57 Male 23 Female 34
Stratford (class 7D)	May 6 10:57am	May 13 10:57am	May 14 1:30pm	
Britannia (class 7D)	May 5 9:00am	-	May 13 10:00am	Control N 52 Male 29 Female 23
Britannia (class 7C)	May 5 9:30am	-	May 13 10:30am	

that any private questions could be dealt with in his or
her normal manner after class. In this way, the pre-test
was administered to each of the participating groups.

Selection of Control and Experimental Groups

The designation of the control group was determined
by necessity. Since the lecturer was the resident counsellor
at Britannia, the students at Britannia became the control
group. Because the lecturer had been to numerous school
counsellor meetings at Westlawn, he played the role of the
counsellor for the students of this school. The role of
the drug squad detective for Hillcret's students and the
role of medical doctor for Stratford's students was
randomly assigned. As previously mentioned, the different
roles were played by the same lecturer.

An attempt was made to present the standardized
lecture to each of the groups in identical fashion.
Because two classes from each of the schools were involved
in the experiment, it was necessary to present the lecture
six times. The lecturer started each lesson by writing his
name and position on the black-board to identify the role
he was playing. The remainder of the lesson was based on
the standardized material presented on the overhead
projector (APPENDIX A). (In each case, the resident
school counsellor had pre-positioned the screen and
projector for optimum viewing. Each classroom had been

previously checked for near uniformity of the physical environment.) The information handout (APPENDIX D), advising of some of the consequences of a drug conviction, brought each lecture to a close. At the conclusion of each lecture, the lecturer advised that any questions the students might have would be answered the next day.

The following day, the post-test was administered. The counsellors at Westlawn and Stratford, after being briefed by this researcher, administered the post-test. This researcher administered the post-test at Hillcrest and Britannia. In all cases, the post-test was administered in the same manner as the pre-test with one exception - students who had missed the pre-test or the lecture were requested not to complete the test (this involved three students). After all the tests had been collected, the goals of the experiment were outlined for the students. The questions voiced by the students confirmed that the roles played by the lecturer were accepted at their face value. Thus, in the total time of eleven days, the subjects had completed a pre-test, had a lecture (except the control group), and had the post-test.

Treatment of Data

After both the pre-test and the post-test had been administered, they were arranged by class groups so that each subject's pre-test and post-test could be paired.

The pre-test and post-test were paired on the basis of sex, school, birthdate, and in one case, handwriting. Five of the pre-tests went unpaired and were therefore unused. Five students, who had written the pre-test were absent when the post-test was administered.

Scoring and recording the data followed the pairing of the tests. The raw data was transferred from the test papers to a data keypunching form and then copied onto IBM 5050 cards. At this point, the data was ready for analysis.

Analysis of Data

Prior to testing the hypotheses, two underlying assumptions required testing. It was assumed that the initial attitudes and the level of knowledge held by the students of all four schools were not significantly different. To test this assumption, an analysis of variance was carried out on the attitude and knowledge scores for the four groups on the pre-test.

It was further assumed that the sex of the students was not a significant factor in attitudes or level of knowledge before the lecture or a factor in any attitude or knowledge adjustment. This assumption was tested by an analysis of variance on both the attitude and knowledge scores from the pre-test and the post-test.

Hypothesis I - Seventh grade students will adjust their attitudes on drug abuse as the result of information gained from a single lecture.

This first hypothesis was tested in two ways. An analysis of variance was carried out on the difference between the pre-test and post-test attitude scores for each of the three experimental groups and the control group. To provide a further check of the results, an analysis of variance was also carried out on the post-test attitude scores between each of the four groups. The relationship between knowledge gain and attitude gain was tested by a Pearson Product Moment correlation test carried out with the scores derived from the pre-test and post-test of the experimental groups. Thus, two analyses of variance tests and a correlation test examined the first hypothesis.

Hypothesis II - The role of the comunicator of information is a significant factor in attitude adjustment.

This final hypothesis was tested in conjunction with the first hypothesis. That is, the analysis of variance tests used to check the relationship between the experimental groups and the control group also yielded the relationship between the experimental groups (Scheffe test was used).

The handling of the various statistical tests was facilitated by the use of the IBM 360 Computer which serves researchers at the University of Alberta. The actual

statistical programs used were selected from the program library. Thus, it was practical to run a number of statistical tests.

The last two items on the attitude scale of the post-test, dealing with the students perception of the lecturer's attitude towards drugs, were not used. A careful visual check of the responses made to these statements indicated that almost all the students were able to correctly identify the lecturer's attitude towards drugs.

CHAPTER IV

PRESENTATION OF THE DATA

Prior to testing the formal hypotheses, the assumptions of commonality of existing attitudes and knowledge among the four junior high schools and between the sexes were tested. The results, contained in Tables II and III, clearly indicate that at least on the instruments used in this study, there was no reason to believe that the groups held different attitudes or levels of knowledge with respect to marijuana. There was also no significant difference between the sexes. Thus, the assumptions of commonality of attitude and of knowledge were supported.

TABLE II

A COMPARISON OF THE INITIAL ATTITUDES AMONG THE SCHOOLS
AND BETWEEN THE SEXES BY ANALYSIS OF VARIANCE

	df	MS	F	p*
Among the Schools	3	9.00	.32	n.s.
Between the Sexes	1	8.50	.31	n.s.

*p less than .05

TABLE III

A COMPARISON OF THE INITIAL LEVEL OF KNOWLEDGE AMONG THE
SCHOOLS AND BETWEEN THE SEXES BY ANALYSIS OF VARIANCE

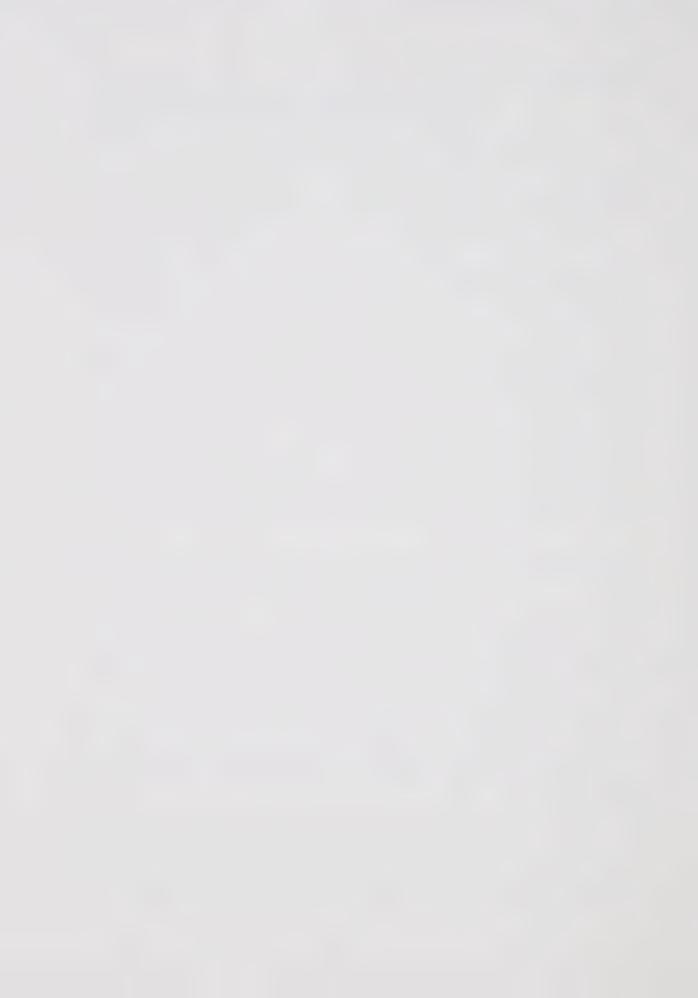|	df	MS	F	p*
Among the Schools	3	5.29	1.63	n.s.
Between the Sexes	1	3.03	0.09	n.s.

*p less than .05

Hypothesis I - that seventh grade students will adjust
their attitudes on drug abuse as the
result of information gained from a
single lecture.

The analysis of variance carried out on both the
attitude change scores (TABLE IV) and the post-test scores
(TABLE V), as well as the Scheffe Multiple Comparison of
Means (TABLE VI), conclusively requires the acceptance of
the above mentioned hypothesis.

TABLE IV

A COMPARISON OF THE SCHOOLS ON THE BASIS OF CHANGES IN
ATTITUDE SCORES (POST-TEST MINUS PRE-TEST)
BY ANALYSIS OF VARIANCE

	df	MS	F	p
	3	306.28	12.02	.000004

TABLE V

A COMPARISON OF ATTITUDES AMONG THE SCHOOLS AND BETWEEN
THE SEXES ON THE POST-TEST BY ANALYSIS OF VARIANCE

	df	MS	F	p*
Among the Schools	3	327.19	7.10	.0001
Between the Sexes	1	13.45	0.29	n.s.

*p less than .05

TABLE VI

PROBABILITY MATRIX FOR SCHEFFE MULTIPLE
COMPARISON OF ATTITUDE MEANS

Schools:	Hillcrest (policeman)	Westlawn (counsellor)	Stratford (doctor)	Britannia (control)
Hillcrest	1.0	.9502	.9216	.0000
Westlawn		1.0	.9996	.0001
Stratford			1.0	.0001
Britannia				1.0

Evidence to support a functional relationship between
attitude change and knowledge change is suggested by the
results in Tables IV, VI and VII. The control group made
no significant change in either knowledge or in attitudes.
The experimental groups made significant changes in both
knowledge and in attitudes.

TABLE VII

A COMPARISON OF THE LEVEL OF KNOWLEDGE AMONG THE SCHOOLS
AND BETWEEN THE SEXES ON THE POST-TEST
BY ANALYSIS OF VARIANCE

	df	MS	F	p*
Among the Schools	3	43.56	14.66	.000005
Between the Sexes	1	.71	.24	n.s.

*p less than .05

A single lecture on drug abuse, specifically marijuana,
can and did result in a significant positive change in
attitude and a significant change in knowledge. It would
seem clear that seventh grade students will adjust their
attitudes on the basis of information. The only difference
in treatments between the control group and the experimental
groups was the lecture on drugs. Since all other known
variables were relatively equal, the significant difference
in expressed attitudes would seem to be attributable to
the drug lecture.

The unanticipated low correlation between change in
knowledge score and change in attitude score might be
attributed to the true-false scale (TABLE VIII). A true-
false scale is subject to guessing. This guessing factor
might have resulted in some individual students changing

their responses and thereby either increasing or decreasing
their total knowledge score on the basis of chance. The
limited range of the knowledge scale could tend to
compound the chance effects.

TABLE VIII

CORRELATION OF KNOWLEDGE CHANGE AND ATTITUDE CHANGE

Control Group	-0.113*
Experimental Group	0.063*

*correlation not significant at .05 level

Hypothesis II - that the role of the communicator is a
factor in attitude adjustment.

Hypothesis II cannot be accepted. As is clearly
indicated in Tables VI and IX, there was no significant
difference in attitude change (nor knowledge change) among
the different experimental groups. The rejection of the
hypothesis does not suggest that all lecturers possess
equal powers of persuasion, but that there was no significant
difference between the counsellor, the doctor and the
policeman as portrayed in the present study.

TABLE IX

KNOWLEDGE AND ATTITUDE RAW DATA SUMMARY

Schools		Pre-test		Post-test		Mean Score
		Male	Female	Male	Female	Change
Hillcrest	Knowledge	8.0	7.9	10.0	9.4	1.4*
(policeman)	Attitude	57.7	54.6	62.9	60.1	5.3
Westlawn	Knowledge	8.2	8.7	9.4	9.6	1.4*
(counsellor)	Attitude	56.9	56.2	62.0	60.3	4.7
Stratford	Knowledge	8.9	8.7	10.6	10.1	1.4*
(doctor)	Attitude	56.0	55.4	59.8	60.3	4.6
Britannia	Knowledge	8.2	8.2	8.1	8.3	-0.03
(control)	Attitude	55.2	57.5	55.9	56.9	.04

*mean knowledge change of the combined experimental
groups

CHAPTER V

DISCUSSION AND IMPLICATIONS

The primary intent of this study was to investigate
the possibility of bringing about attitude changes by
education. The data supports the contention that a single
lecture does result in attitude change. Students, on the
receipt of new information, apparently adjusted their
attitudes to maintain cognitive balance (Heider, 1964).
Thus, it would seem to follow that an expanded program of
classroom education could reduce the problems associated
with drug abuse.

At least within the classroom, it seems that the
attitudes of a knowledgeable lecturer will be accepted.
The influence of role was apparently secondary to the degree
of expertise displayed by the lecturer. The importance of
expertise, as was reported by Simsons et al (1970), seemed
to be supported by the results of this study. It would be
wise therefore, for a classroom teacher to utilize
knowledgeable speakers when that teacher's own knowledge
is limited. Whether that speaker would have more effect
if he or she were from the local school staff or from
outside the particular school, is open to research. The
indications, however, are that if that speaker is knowledgeable,
the desired attitude change can be brought about. The low

statistical correlation between attitude change and knowledge change can be attributed at least in part to the guessing factor associated with a true-false scale. A more discriminating knowledge scale would likely result in a higher correlation value. This apparent lack of correlation does not alter the fact that the only known difference in treatments was the presentation of knowledge by means of a lecture. That is, the lecture method of education, resulted in a positive attitude change. A more expanded program of drug education would likely be even more effective.

The efforts being made by governments to support drug education programs would appear to have a potential. Even a single lecture can have a positive effect. A well designed educational program might reduce the growing drug abuse problem.

The key would appear to be a well designed program. As the Hon. Mr. Munro has stated:

> One of the primary problems is to have an educational program that is received with credibility by the young people - not filled with a lot of things they are not prepared to accept or which ... may make certain statements which cannot be founded (Blakely, 1970).

Thus, a certain degree of caution and a great deal of drug research is required before an expanded drug education program can be presented. This does not mean, however, the known 'facts' cannot be presented. The legal and

social facts are reasonably well established. The medical
facts are forthcoming.

The legal and social implications of drug abuse
should be made known, NOW.

SELECTED REFERENCES

Abelson, R.P., Rosenberg, M.J., Symbolic Psychologic:
    A model of attitudinal cognition. Behavior Science,
    1958, 3, 1-13.

Aronson, E., Turner, J.A., and Carlsmith, J.M., Communicator
    credibility and communication discrepancy as
    determinants of opinion change. Journal of Abnormal
    and Social Psychology, 1963, 67, 31-36.

Asch, S.E., Social Psychology, New York: Prentice-Hall, 1952.

Blakely, A., Ottawa will present drug facts to youth.
    Edmonton Journal, May 28, 1970.

Cohen, A.R., Attitude Change and Social Influence, New York:
    Basic Books, 1964.

Courts, F.A., Psychological Statistics, Homewood: The
    Dorsey Press, 1966.

Doob, L.W., The behavior of attitudes. In M. Fishbein(ed.)
    Readings in Attitude Theory and Measurement, New York:
    John Wiley & Sons, Inc., 1967.

Festinger, L.A., A Theory of Cognitive Dissonance, New York:
    Harper & Row, 1957.

Freund, J.E., Williams, F.J., Dictionary Outline of Basic
    Statistics, McGraw-Hill, Inc., 1966.

Guttman, L., The basis for scologram analysis. In
    T. Stouffer et (eds.), Measurement and Prediction,
    Princeton: Princeton University Press, 1950

Heider, F., Attitudes and cognitive organization.
    Journal of Psychology, 1946, 21, 107-112.

Hovland, C.I., Janis, I.L., and Kelly, H.H., _Communication and Persuasion_, New Haven: Yale University Press, 1953.

Hutt, M.L., Esaacson, R.L., Blum, M.L., _Psychology: The Science of Interpersonal Behavior_, New York: Harper & Row, 1966.

Katz, D., The functional approach to the study of attitudes. In M. Fishbein (ed.), _Readings in Attitude Theory and Measurement_, New York: John Wiley & Sons, Inc., 1967.

Katz, I., Oliver, S., James, R., Robinson, M., Effects of task difficulty, race of administrator, and instructions of digit-symbol performance of negroes. _Journal of Personality and Social Psychology_, 1965, 2, 1, 53-59.

Kelman, H.C., Eagly, A.H., Attitude toward the communicator, perception of communication content, and attitude change. _Journal of Personality and Social Psychology_, 1965, 1, 1, 63-78.

McDonald, F.J., _Educational Psychology_, (second ed.), Belmont: Wadsworth Publishing Company, Inc., 1965.

Manis, M., The interpretation of opinion statements as a function of recipient attitude and source prestige. _Journal of Abnormal and Social Psychology_, 1961, 63, 82-86.

Osgood, C.E., Suci, J., Tannenbaun, P.H., _The Measurement of Meaning_, Urbana: University of Illinois Press, 1957.

Paulson, S.F., The effects of the prestige of the speaker and acknowledgement of opposing arguments on audience retention and shift of opinion. _Speech Monographs_, 1954, 21, 267-271.

Simsons, H.W., Berkowitz, N.N., and Moyer, R.J., Similarity, Credibility, and Attitude Change. _Psychological Bulletin_, 1970, 73, 1, 1-16.

Torrance, E.P., Mason, R., Instructor effort to influence:
    An experimental evaluation of six approaches. The
    Journal of Educational Psychology, 1958, 49, 211-218.

Whitehead, P.C., Student Behavior and Attitudes to Drugs.
    The School Guidance Worker, 1970, 25, 5, 20-23.

APPENDIX A

LESSON PLAN TRANSPARENCIES

Transparency #1

M A R I J U A N A

CANADIAN MEDICAL ASSOCIATION (for Stratford Jr. High School)

EDMONTON PUBLIC SCHOOL BOARD (for Westlawn Jr. High School)

EDMONTON CITY POLICE DEPARTMENT (for Hillcrest Jr. High
                                                School)

Transparency #2

Marijuana

1. Cannabis (marijuana) is a dangerous
    drug and as such is a public health
    concern.

2. Penalties for violations of the
    marijuana laws are often harsh and
    unrealistic.

3. Legalization of marijuana would
    create a serious abuse problem in
    Canada.

Transparency #3

Lesson Outline

1. Cannabis (marijuana) is a dangerous
   drug and as such is a public health
   concern.

   (a) it has been used as an
        intoxicant in Asia, Africa, and
        South America for centuries and
        now is growing in use in Canada.

   (b) it has no medical use.

   (c) organized societies have imposed
        legal and social sanctions against
        marijuana.

   (d) various marijuana concentrates,
        such as hashish are extremely
        potent - a small dose is capable
        of rendering a dog unconscious
        for several days - human research
        is incomplete.

Transparency #4

   (e) countries like Egypt, Morrocco,
        and Algeria attribute their lack
        of productivity to the chronic or
        heavy use of marijuana.

   (f) although marijuana does not lead
        inevitably to heroin abuse, it is
        a fact that most heroin abusers
        have experimented first with
        marijuana.

   (g) some marijuana users, rather than
        risk the physical dependence of
        heroin, move on to other stronger
        and more dangerous drugs like LSD
        and speed (amphetamines).

(h) the marijuana cigarette smoker
     really does not know what he is
     smoking. A reefer or marijuana
     cigarette, may contain dangerous
     impurities or more dangerous
     drugs.

Transparency #5

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2. Penalties for violations of the marijuana
    laws are often harsh and unrealistic.

    (a) marijuana, like heroin, comes
         under the Narcotic Control Act.

    (b) a conviction under the Act results
         in a criminal record, plus

              - up to 7 years imprisonment
                for possession.

              - up to life imprisonment for
                trafficking (pushing).

              - a minimum of 7 years
                imprisonment and a maximum
                of life imprisonment for
                importing narcotics into
                Canada.

Transparency #6

      (c)   the courts should be able to
            adjust the penalty to fit the

              i)   occasional user

             ii) frequent user

            iii) chronic user

             iv) person sharing his drug

              v) dealer who sells for profit

      (d)   the penalty for the occasional
            user is too harsh; it is too mild
            for the dealer.

      (e)   results of criminal record.

Transparency #7

    3.   Legalization of marijuana would create
       a serious abuse problem in Canada.

      (a)   legal access to marijuana would
            likely lead to the introduction
            of stronger forms of marijuana.

      (b)   if potency was limited, man's
            nature would likely lead to the
            introduction of illegal forms.

      (c)   to say marijuana is not as
            intoxicating as alcohol is false.
            Reports which say marijuana is
            less intoxicating have been
            misrepresenting the facts.
            (Overlay).

(d) alcohol is a health and social
hazard. Making marijuana more
accessible would only create a
comparable problem of major
proportions.

(e) it is not illegal to drink
alcohol but in many cases it is
illegal to be drunk. The use of
marijuana leads to drunkenness.

Transparency #8

Marijuana

1. Cannabis (marijuana) is a dangerous
drug and as such is a public health
concern.

2. Penalties for violations of the
marijuana laws are often harsh and
unrealistic.

3. Legalization of marijuana would
create a serious abuse problem in
Canada.

APPENDIX B

A DRUG SURVEY

This questionnaire has been designed to find out what you know about and think about marijuana. Please indicate, in the spaces below: the date, your school, your sex (boy or girl), your age, and your birthday. Please do not put your name anywhere on this paper.

Date _____ School_____

Sex _____ Birthday _____ _____ _____
                            day   month   year

Please indicate at the right (by circling) whether the following statements are true or false. (Pencil or pen may be used.)

Example: (a) Marijuana comes from the hemp plant.   T   F

1. Marijuana is an intoxicant(leads to drunkenness). T   F

2. Marijuana was discovered in the early 1900's.   T   F

3. Doctors in Asian countries frequently prescribe
    marijuana as a cure for dysentery.   T   F

4. Hashish is less potent (weaker) than marijuana. T   F

5. Marijuana users are subject to the same laws
    as are heroin users.   T   F

6. A conviction for marijuana use can result in a
    criminal record.   T   F

7. The minimum penalty for importing marijuana is
    seven years imprisonment.   T   F

8. The marijuana user and the marijuana pusher
    are subject to the same penalties.   T   F

                                                     T   F
9. Marijuana and alcohol are both drugs.

10. Most heroin users have used marijuana.   T   F

11. Marijuana is a concentrate of hashish.   T   F

12. At least physically, LSD is less dangerous than marijuana.   T   F

13. Marijuana varies in potency (strength).   T   F

14. A marijuana cigarette is called a Tennessee toothpick.   T   F

Please mark the comment which best represents your opinion to each of the following statements:

Example: (a) Girls should be allowed to wear jeans to school.

Strongly____ Agree____ Undecided____ Disagree____ Strongly____
Agree   Disagree

1. The chronic or heavy use of marijuana can lead to a lack of productivity.

Strongly____ Agree____ Undecided____ Disagree____ Strongly____
Agree   Disagree

2. The use of marijuana is a social problem.

Strongly____ Agree____ Undecided____ Disagree____ Strongly____
Agree   Disagree

3. Penalties for marijuana pushers are too mild.

Strongly____ Agree____ Undecided____ Disagree____ Strongly____
Agree   Disagree

4. It is quite easy to mix a stronger drug in a marijuana cigarette without the smoker knowing about it.

Strongly____ Agree____ Undecided____ Disagree____ Strongly____
Agree   Disagree

5. The courts should be allowed to adjust minimum and maximum penalties to suit the drug pusher (trafficker).

Strongly____ Agree____ Undecided____ Disagree____ Strongly____
Agree   Disagree

6. The legalization of marijuana would result in a serious abuse problem.

Strongly____ Agree____ Undecided____ Disagree____ Strongly____
Agree   Disagree

7. Penalties for marijuana users are too harsh.

Strongly____ Agree____ Undecided____ Disagree____ Strongly____
Agree   Disagree

8. The legalization of marijuana would result in the use of more potent (stronger) forms of marijuana.

Strongly____ Agree____ Undecided____ Disagree____ Strongly____
Agree   Disagree

9. The use or sale of marijuana should be legalized.

Strongly____ Agree____ Undecided____ Disagree____ Strongly____
Agree   Disagree

10. Marijuana should be a public health concern.

Strongly____ Agree____ Undecided____ Disagree____ Strongly____
Agree   Disagree

11. A person should be allowed to use marijuana if he or she does not become too high.

Strongly____ Agree____ Undecided____ Disagree____ Strongly____
Agree   Disagree

12. Many marijuana users go on to more potent (stronger) drugs.

Strongly____ Agree____ Undecided____ Disagree____ Strongly____
Agree   Disagree

13. The use of marijuana seems to lead to the use of more dangerous drugs.

Strongly____ Agree____ Undecided____ Disagree____ Strongly____
Agree   Disagree

14. Countries in which the people are heavy marijuana users tend to remain underdeveloped.

Strongly____ Agree____ Undecided____ Disagree____ Strongly____
Agree   Disagree

15. Marijuana is at least as intoxicating (resulting in drunkenness) as alcohol.

Strongly____ Agree____ Undecided____ Disagree____ Strongly____
Agree   Disagree

*16. Generally speaking, the doctor who presented the lecture on marijuana was against the use of marijuana.

Strongly____ Agree____ Undecided____ Disagree____ Strongly____
Agree   Disagree

*17. Most doctors are against the use of marijuana.

Strongly____ Agree____ Undecided____ Disagree____ Strongly____
Agree   Disagree

*Questions 16 and 17 appeared on the post-test only. The word policeman was substituted for doctor at Hillcrest School, and the word counsellor was substituted for doctor at Westlawn School.

APPENDIX C

A FORM LETTER TO PARENTS

May 1, 1970

Dear Parent:

A number of classes from Hillcrest, Westlawn, Stratford and Britannia Junior High Schools have been selected to participate in a survey. Your son or daughter will be requested to complete an anonymous questionnaire relating to the legal and physical hazards of marijuana use. If you desire further information, please feel free to contact the undersigned at Hillcrest Junior High School.

Respectfully yours,

E.J. Armstrong
Counsellor,
Hillcrest Junior High
School
Phone 489-2516

APPENDIX D

INFORMATION BULLETIN FOR STUDENTS

(Prepared by the Attorney General's Department and the
 Department of Youth for the
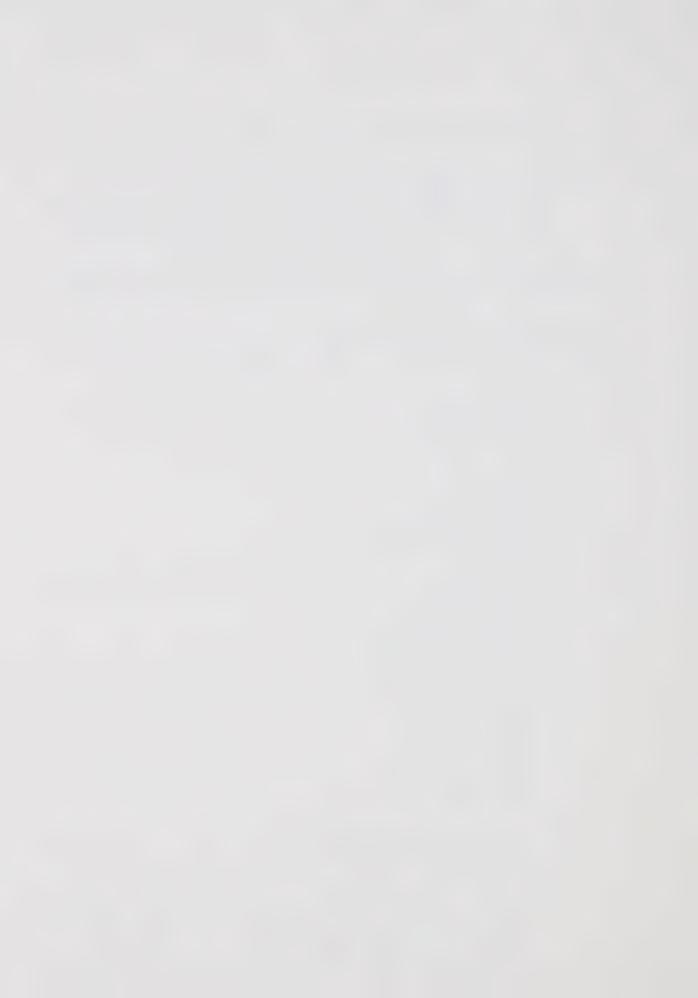   - Edmonton City Police Department - Hillcrest School
          - Canadian Medical Association - Stratford School
          - Edmonton Public School Board - Westlawn School).

          Any person convicted of using drugs or any violation
of the legal code related to the use, sale or distribution
of drugs has acquired a criminal record.

          Perhaps you should be aware of the consequences of
such conviction. If you have a criminal record involving
drugs, you are not likely to be employed by:

          1. the civil service:
              (a) federal
              (b) provincial
              (c) civic

          2. financial institutions:
              (a) banks
              (b) investment houses
              (c) loan companies
              (d) insurance companies

          3. occupations in which you deal with young people:
              (a) teachers
              (b) ministers
              (c) youth workers
              (d) recreation workers
              (e) social workers

          4. professions which have access to drugs:
              (a) medicine
              (b) dentistry
              (c) nursing
              (d) veterinary
              (e) pharmacy
              (f) nurses aides

          5. law enforcement occupations:
              (a) policeman or policewoman
              (b) security guards
              (c) R.C.M.P.

          6. finally, people who wish to travel outside Canada
              or to emigrate are not likely:
              (a) to obtain passports
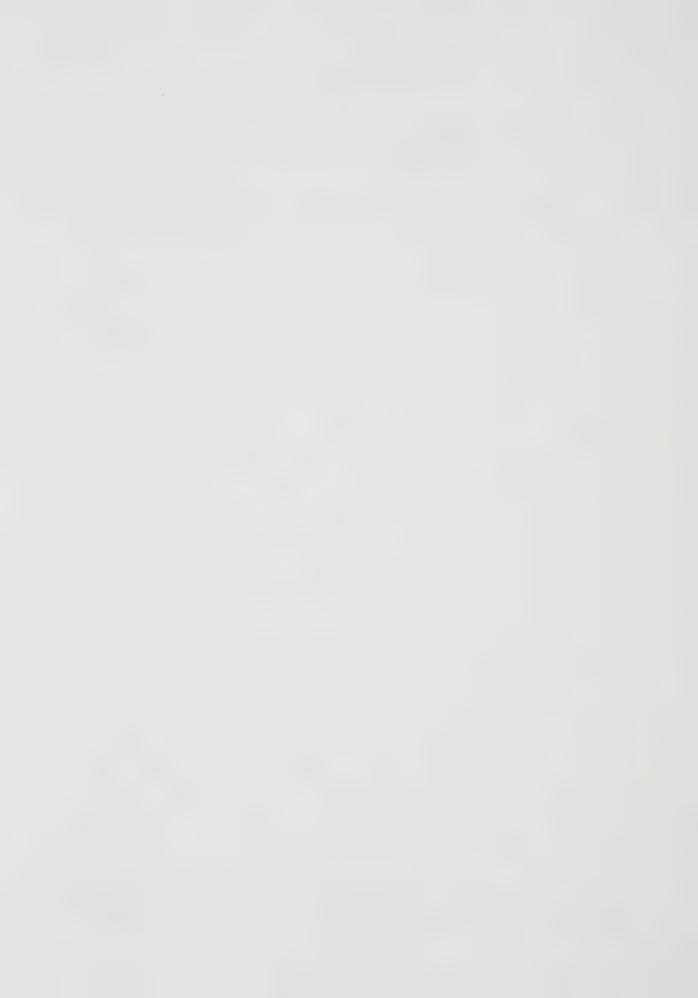   (b) to be accepted by the authorities in another
                  country.

APPENDIX E

Tape-recorded Transcript from the First Lecture-
Westlawn Junior High School*

There are three main areas I would like to cover
with you in relation to the use of marijuana. First of
all, the word after #1 - up there - Cannabis - is the
technical term for marijuana. It is the plant we actually
get the drug from, and one of the problems with marijuana
is that it is a dangerous drug, and consequently, it is
a public health concern. Now, I'll cover some of the
aspects of this first area when I talk to you a little later
on. Secondly - that penalties for violation of the
marijuana laws are often not related to the severity of the
crime. In other words, the penalties that you can get for
possession, for trafficking or for bringing it into the
country are not really related to the degree of severity
or how serious the crime actually is. So, we'll talk a
little bit about that - and then, finally, I'd like to
look at the legalization of marijuana and some of the
problems that we might have if we legalized marijuana, if
we made it legal for people in Canada to use this drug.

First of all, under topic number one, that it is a
public health hazard. "A" point, states that it is being

*This lecture was presented in a normal classroom
with the aid of an overhead projector. In this case, the
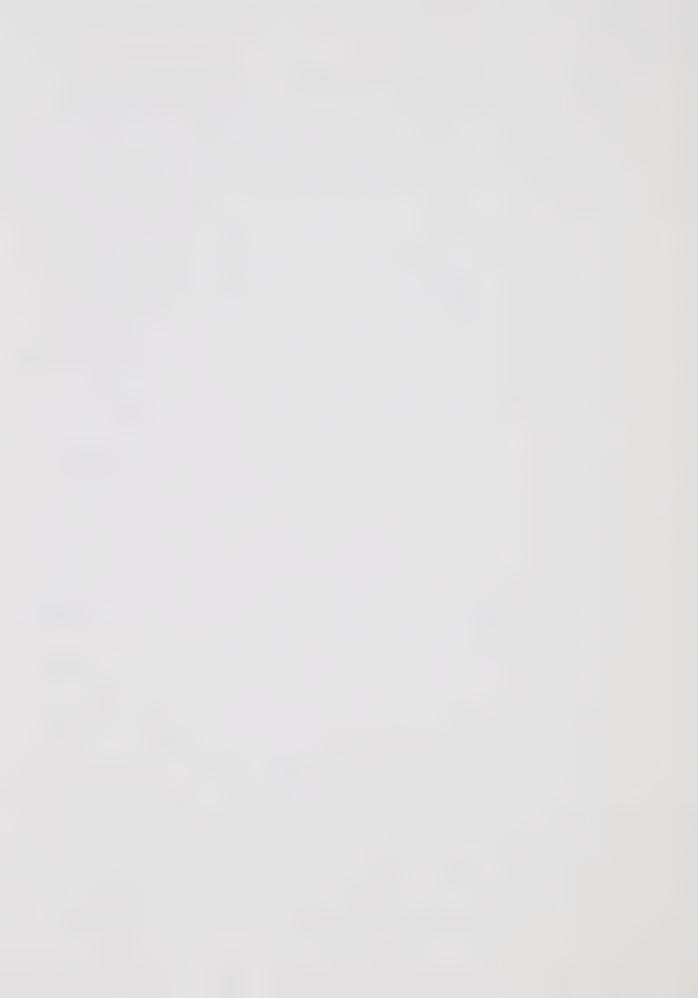lecturer introduced himself as a visiting school counsellor.

used as intoxicant in countries like Africa, Central or
South America and Asia for centuries. Now, an intoxicant
is a substance which will produce drunkenness, so that,
alcohol is an intoxicant and marijuana has the same use -
it is used to produce drunkenness. Now, although it can be
used to produce drunkenness, we know it does not have any
medical use in the medical profession - we are aware of the
fact that it has no use for us. Now, many of the countries
where the societies are organized like Canada, the United
States, Europe - these types of countries with governments
and organized societies - many of these countries have made
laws or as it says under point "c", they have imposed legal
sanctions against the use of marijuana. These countries
in other words, have made laws that prohibit or forbid their
people to use this drug. Also, the people themselves have
sort of made a code of ethics and they frown on the use of
marijuana - that is, the social sanction or the social laws.
Or in other words, the people in these countries frown on
anyone who uses the drug. And point "d", I think is extremely
important - it states that we don't know very much about the
human research on this drug, but it has been found in tests
that if we use a concentrated form of marijuana, we can
actually knock a dog out for several days - make him
completely unconscious for several days by using a
concentrated form of this drug. Now, we usually use animals
in science to test our theories on first, and then we use the

drugs or whatever it is on people. But in this case, we don't have any findings on the people part of it, but if we look at what happens to dogs, we can see that the same thing could possibly happen to people - if the dose was concentrated enough.
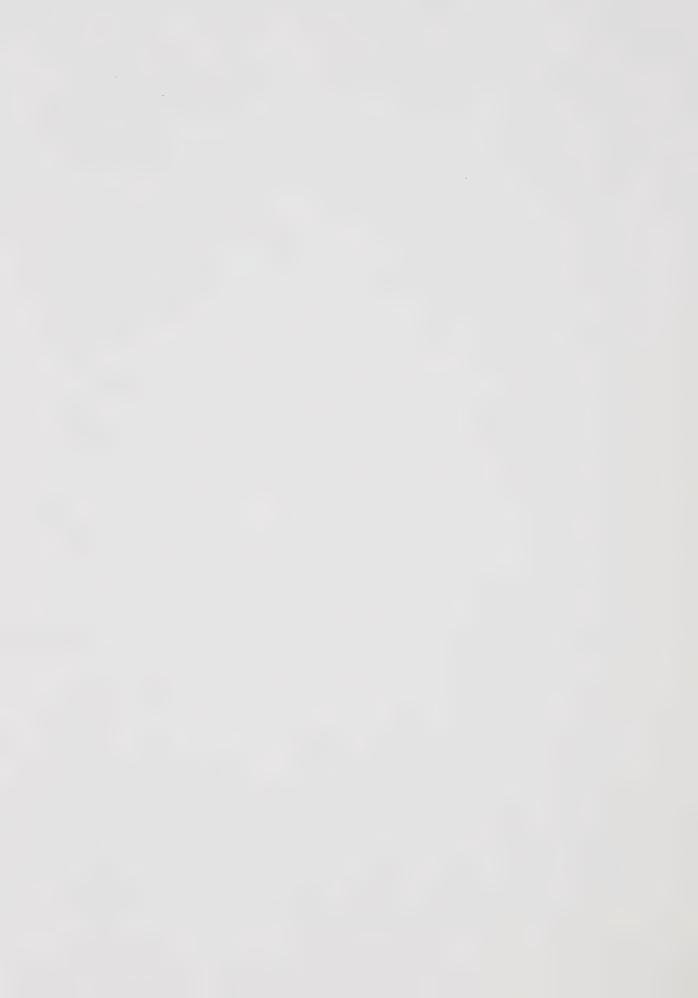
A number of countries like Egypt, Morrocco and Algeria, have decided that the reason they cannot produce goods the way we do in Canada and the United States and in Europe, is because a large percentage of their population uses marijuana. And marijuana, as I pointed out, produces intoxication or drunkenness - it makes you out of touch with reality - you aren't aware of what is really happening when you use this substance. Consequently, these countries believe that the reason they don't have a very high productivity is because a large percentage of their population uses the drug. Now you will notice these countries are located in North Africa- if you know your social studies - Egypt, Morrocco and Algeria are located in the northern part of Africa.

Now one of the most important areas in this subject is that we have found from talking to people who use heroin, which is a narcotic and a drug that is addictive, - we have found that these people started on marijuana - that the majority of heroin users actually began their drug career with marijuana. Now this does not mean that if you use marijuana you will automatically use heroin, but it does mean that the majority of the people who use heroin did at
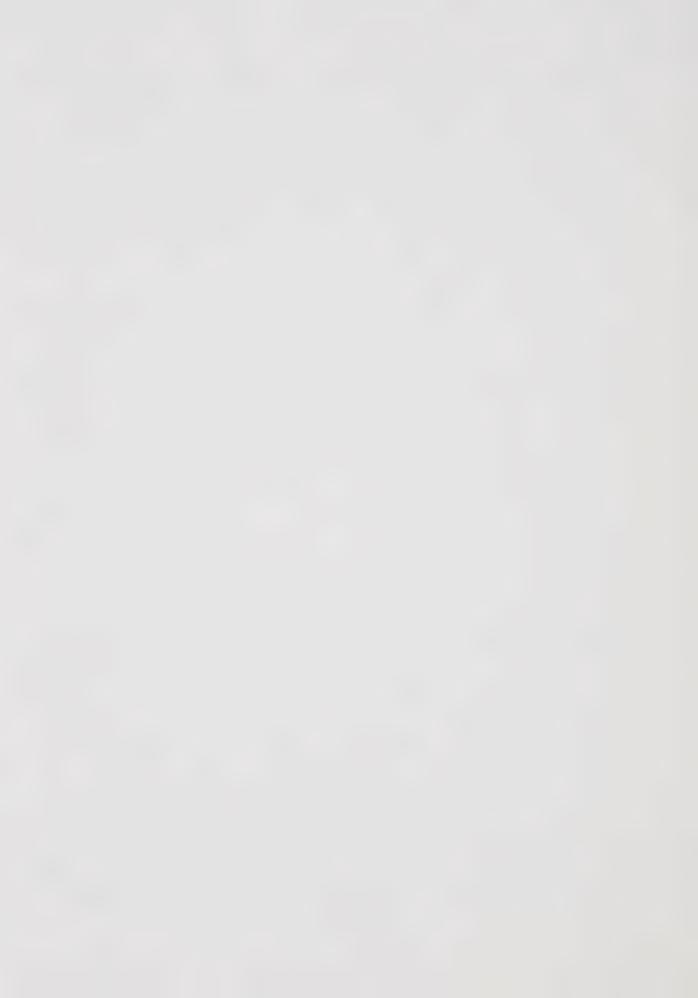
one time start with marijuana - so that the one can lead
to the other. Now when I said heroin was an addictive drug,
I meant this - that your body actually craves the drug and
you become hooked on it - you cannot do without it. And
heroin, as I said, is a narcotic. Now, a lot of people
rather than taking a chance on getting hooked on heroin,
will go on to stronger drugs than marijuana and they will
use drugs such as LSD and speed. Now, you have probably all
heard the comment that the hippies use - "that speed kills".
Well, speed or as it is pointed out here, amphetamines -
these drugs can actually put you in a state where you will
commit suicide or get killed because you are out of touch
with reality. Now, rather than become dependent - you know,
rather than have their bodies crave a drug like heroin, these
people will go on to a drug like speed and LSD. Now, the
craving and dependence is not there, but the drugs are much
stronger than marijuana. So, again there is a tendency to
go on to stronger kinds of drugs after you have tired marijuana.

And now, a key point, - point "h", just down at the
bottom. One of the things you should know is that these
cigarettes are made against the law and there are no legal
controls on how they are made or what is put into them. So
that you have to place a lot of trust in the person you buy
it from. And he has to put a lot of trust in the person he
gets it from. Because these people get fairly small supplies
of marijuana and they pad it - they fill up their stock by

adding other things to it. So that, when you actually smoke one of these things, you cannot be aware of what the guy who made it actually put into it, and he could have a very strong form of the drug which could actually make you unconscious, just like the stronger forms did to the dogs. So you don't know what you are actually smoking - depending on what the person who made it put into it.

Now, let us take a look at the second area I mentioned - penalties. One of the things that I mentioned was that very often the penalties for using marijuana are not really related to the level of the crime. First of all, point "a" - it says that marijuana, like heroin comes under the Narcotics Control Act; although marijuana is not a narcotic it comes under this Act. And under this Act, you can - if caught - automatically get a criminal record. Now, I'll give you a sheet afterwards, and you can see - you can read this and see some of the consequences of having your name in the book - that is, of having a criminal record. Some of them are - that you would have trouble in leaving the country. Secondly, you would have a lot of trouble getting into some countries if you have a criminal record. It also limits the kinds of jobs you can go into. You cannot go into jobs like police work or medical work if you have a police record related to drugs. And anything that has to do with money or bonding - I don't know if you know what bonding is, but when a person is going to handle material or goods for someone else, they have to

be insured. And you cannot be insured or bonded to handle these kinds of things if you have a criminal record. I have listed the results of getting caught in different situations. Now, for instance, it says that a conviction under the Act, the Narcotics Control Act, results in a criminal record, plus up to seven years in prison for possession. Now, let me just explain that this means that if you are caught with marijuana or a narcotic in your possession, the maximum amount of time they can give you for just having it is seven years. So, you can serve up to seven years in prison if you are caught with this type of drug on your possession. Now, you will notice the second one says, if you are caught pushing drugs or trafficking, the police word is that you can serve a maximum of life in prison. Now let me explain something-trafficking or pushing does not necessarily mean selling. It can also mean giving, so that if you were caught passing a cigarette to someone else, this is considered trafficking or pushing, and you can serve a maximum of life in prison for doing this. In other words, if you were out of the back of the school and you had a reefer of marijuana, and you were smoking it, and you said this to a friend, "here, try this", and there was a policeman there, he could put you away for life - under the law.

Now, it also says there, that you have a minimum of seven years in prison and maximum of life for importing narcotics into the country. If you bring marijuana or a
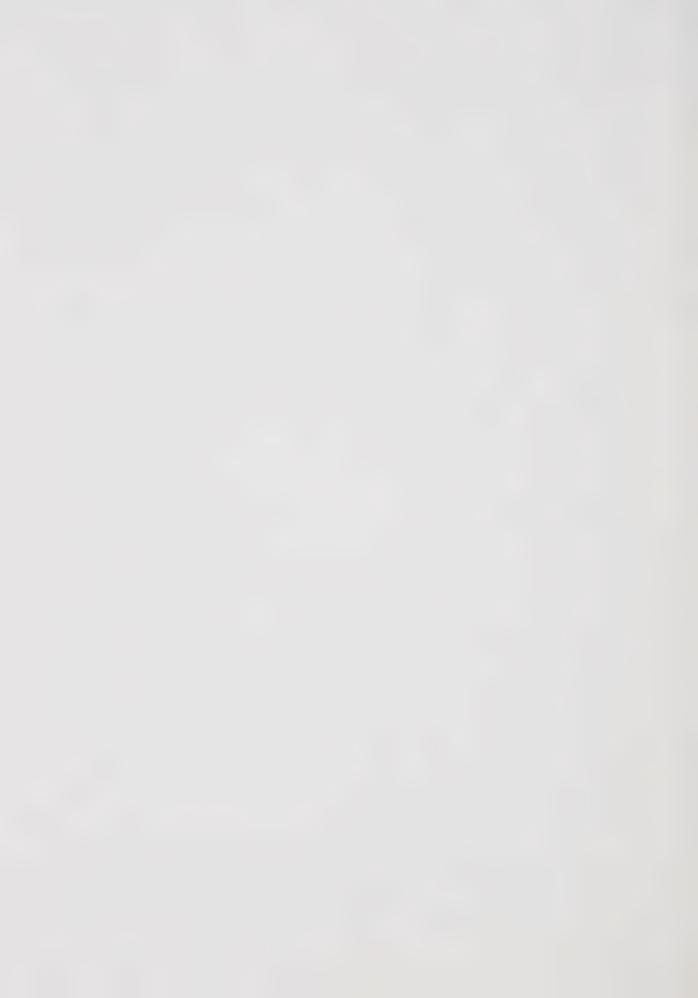
narcotic across the border into Canada, the minimum amount of time you can serve if you get caught is seven years. That means that you go to jail for seven years at the minimum. And the maximum they can send you away for is life. So, if you are caught, say bringing marijuana or heroin across the United States border into Canada, you can actually spend the rest of your life in prison.

Now, as I mentioned, some of these laws do not really fit the crime. And I put down some of the things that can happen. First of all, up at the top, number 1, the occasional user - you will notice from 1 to 5, they go in the order of their strength so that the bottom one, number 5 - the dealer who sells it for profit is actually a more serious thing than the person who uses it occasionally. The occasional user is the person who might go to a party and might try it. Then we have the frequent user, the person who uses it whenever he can get it sort of thing. Then we have the chronic user, the person who uses it all the time. Now, for each one of these three, the penalty is exactly the same. If you get caught at a party the maximum is seven years - they can give you up to seven years in prison. If you use it all the time, the penalty is the same, up to seven years.
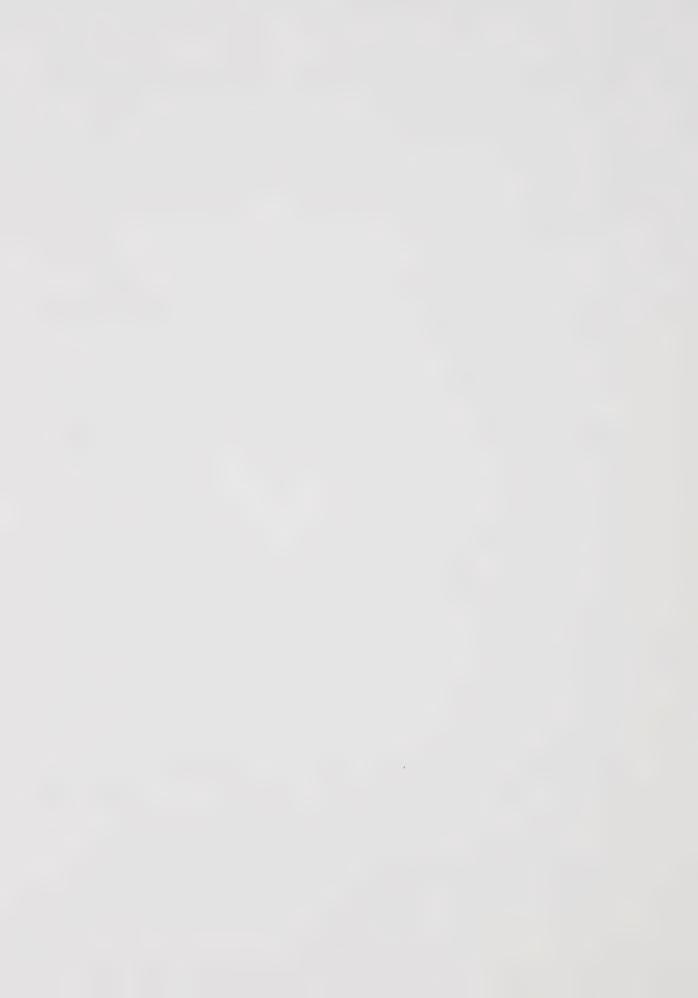
Now, the person who shareshis drug and the person who deals with it, that is, the person who sells it for profit, are also put in the same bracket, and you can get

up to life imprisonment for sharing the drug or for actually being a pusher or for being a seller. So, you can see that the penalty for the occasional user, for instance, is pretty strict, and the penalty for the person who uses it all the time or the person who actually pushes it, may not be strict enough.

I pointed out some of the results of this criminal record - the fact that you are barred from certain kinds of jobs and also you have problems getting passports to get out of the country, and visas to get into other countries.

Let us take a look at some of the things that might happen if we actually legalized marijuana - in other words, if we made it available under the law to the people of Canada. If we said you can use this drug legally - like alcohol, we would probably have to limit the strength of it or how potent a dose you could take at once. Now, if it was sold legally and the dosage was limited, chances are pretty good that people would then begin to sell stronger doses illegally. So, that once you had used it for awhile, and the dosage that you could get legally wasn't strong enough, you would probably go to the illegal forms - you would probably have to buy it illegally in a stronger dose. Also, there are a number of things you can read, and probably have read on marijuana - it states that it does not produce intoxication; that it's not the same as alcohol; and it does not make you drunk. Well, these reports do not give
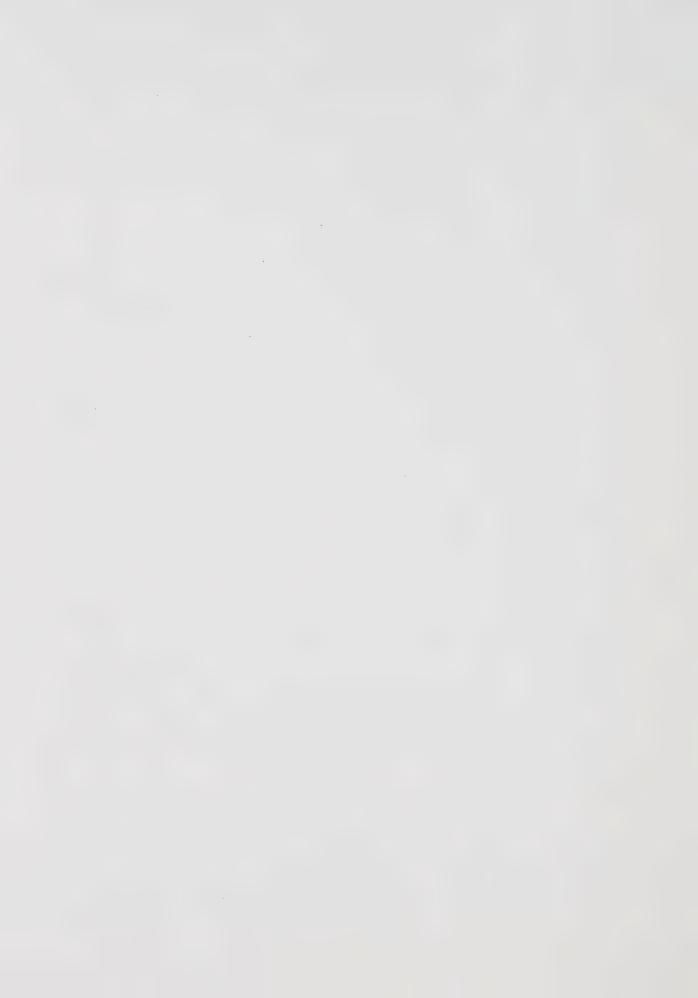
you all the facts. In other words, most of the research

states that marijuana does produce intoxication exactly

the same as you get with alcohol - your eyesight is

affected, your reaction time is affected by this drug. It

does produce drunkenness.

Now, we already have a social problem with alcohol.

Alcohol we are sort of stuck with - the fact that people do

drink. And when we think about this, about legalizing

marijuana, we know already that we have problems in society

with alcohol; people who go to parties and drink too much

and drive cars; people who have fights when they get drunk.

We have a lot of problems with alcohol and most people feel

that if we legalized marijuana we would just create another

problem of the same size. So that people would be able to

not only get drunk on alcohol, but they would be able to

get intoxicated on marijuana.

Finally, and another important thing, it is not illegal

to drink alcohol, but in many cases it is illegal to be

drunk. Now, the breath analizer tests that we have, and

the laws against disturbing the peace, and so on. It is

illegal to be drunk and the use of marijuana does lead to

drunkenness.

So you see, marijuana is a dangerous drug and as

such, is a public health concern. You read or hear reports

that marijuana is not dangerous, but some of the research

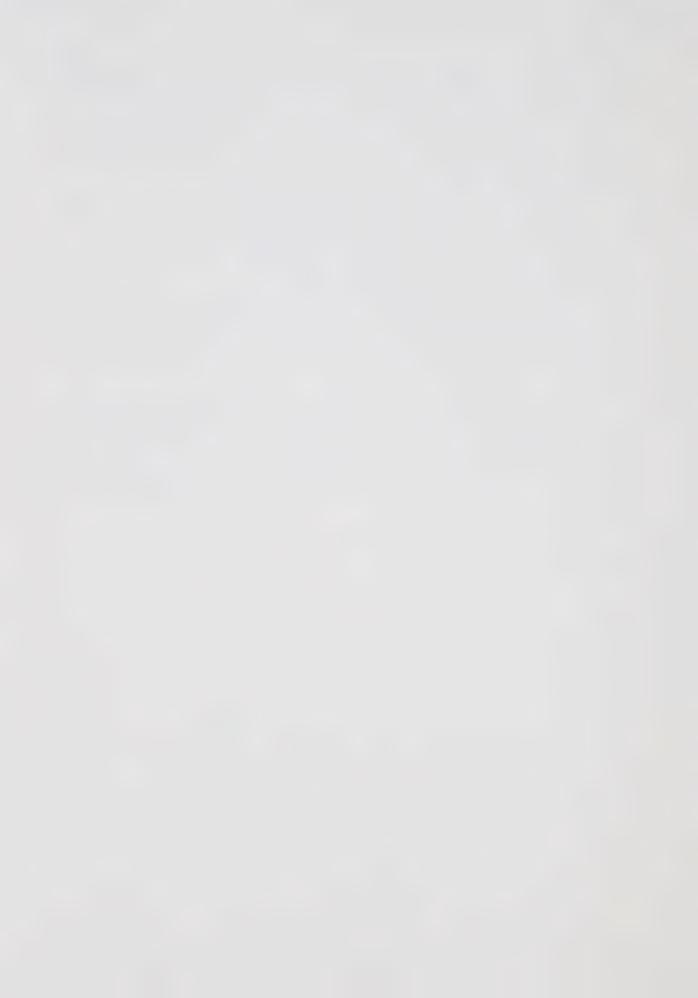shows in the case of dogs this drug can produce unconsciousness

and definitely does produce drunkenness, so it is a public
health concern. Not only this, but it does produce the
kind of people who do not want to work - they are not in
touch with reality.

Secondly, we have seen that penalties associated with
drug use are not just as they should be. The occasional
user is treated like a chronic user.

Finally, the legalization of marijuana would only
add a social problem comparable to the existing alcohol
problem.

Now, I'm sorry I can't stay to answer any questions,
but any questions that you may have will be answered
tomorrow. I'll leave this information for you to look
over.